

CLAIMS

I claim:

1. A network model for managing a service, comprising:
an end service domain that associates the service with an end service provider,
the end service domain comprising:
a plurality of wholesale service domains, respective ones of the plurality of
5 wholesale service domains comprising at least one network that provides traffic
transport for the end service domain;
a plurality of gateways, wherein at least a first one of the plurality of gateways
couples one of the plurality of wholesale service domains to another one of the
wholesale service domains and is configured to perform protocol translation on traffic
10 passing between the coupled wholesale service domains, and wherein at least a second
one of the plurality of gateways is configured to couple a user to the end service
domain and is further configured to communicate with the user by a protocol
associated with the service; and
a process domain that provides an abstract representation of applications
15 provided by the end service domain.
2. The network model of Claim 1, further comprising:
a service management system that is communicatively coupled to the end
service domain, the service management system comprising:
a plurality of software objects that represent resources in the end service
5 domain for providing the service; and
a policy database that comprises rules for associating requirements of the
service with resources in the end service domain.
3. The network model of Claim 1, wherein the requirements of the service
comprise:
service requirements associated with the user; and
business requirements associated with the end service provider.

4. The network model of Claim 1, wherein the first one of the plurality of gateways is further configured to set up internal connections in the one of the plurality of wholesale service domains.

5. The network model of Claim 1, wherein the second one of the plurality of gateways is further configured to analyze incoming user traffic and to segregate the incoming user traffic according to application.

6. A method of managing a service, comprising:
providing an end service domain that comprises a plurality of resources that facilitate delivery of the service;
generating a service model that comprises a plurality of virtual processes and a plurality of virtual connections from the end service domain that are associated with the service;
obtaining information that specifies capabilities of the plurality of resources in the end service domain; and
assigning the plurality of virtual processes and the plurality of virtual connections to ones of the plurality of resources based on the information that specifies the capabilities of the plurality of resources.

7. The method of Claim 6, further comprising:
providing a policy database that comprises rules for associating requirements of the service with the plurality of resources; and
wherein assigning the plurality of virtual processes and the plurality of virtual connections to the ones of the plurality of resources further comprises:
assigning the plurality of virtual processes and the plurality of virtual connections to the ones of the plurality of resources based on the policy database.

8. The method of Claim 7, wherein the requirements of the service comprise:
service requirements associated with the user; and
business requirements associated with the end service provider.

9. The method of Claim 7, wherein generating the service model comprises:

identifying service points in the end service domain corresponding to at least one resource through which a user accesses the service and at least one resource that
5 hosts an end service domain application.

10. The method of Claim 9, wherein the end service domain comprises:
a plurality of wholesale service domains, respective ones of the plurality of wholesale service domains comprising at least one network that provides traffic transport for the end service domain; and

5 a plurality of gateways, wherein at least a first one of the plurality of gateways couples one of the plurality of wholesale service domains to another one of the wholesale service domains and is configured to perform protocol translation on traffic passing between the coupled wholesale service domains, and wherein at least a second
10 one of the plurality of gateways is configured to couple a user to the end service domain and is further configured to communicate with the user by a protocol associated with the service.

11. The method of Claim 10, further comprising:
associating respective ones of the plurality of virtual connections with respective ones of a plurality of ordered lists of the gateways that define routes through the end service domain.

12. The method of Claim 11, further comprising:
associating respective ones of the plurality of virtual connections with respective ones of a plurality of routes within the wholesale service domains.

13. A system for managing a service, comprising:
means for providing an end service domain that comprises a plurality of resources that facilitate delivery of the service;

means for generating a service model that comprises a plurality of virtual
5 processes and a plurality of virtual connections from the end service domain that are
associated with the service;

means for obtaining information that specifies capabilities of the plurality of
resources in the end service domain; and

means for assigning the plurality of virtual processes and the plurality of
10 virtual connections to ones of the plurality of resources based on the information that
specifies the capabilities of the plurality of resources.

14. The system of Claim 13, further comprising:

means for providing a policy database that comprises rules for associating
requirements of the service with the plurality of resources; and

wherein the means for assigning the plurality of virtual processes and the
5 plurality of virtual connections to the ones of the plurality of resources further
comprises:

means for assigning the plurality of virtual processes and the plurality of
virtual connections to the ones of the plurality of resources based on the policy
database.

15. The system of Claim 14, wherein the requirements of the service
comprise:

service requirements associated with the user; and

business requirements associated with the end service provider.

16. The system of Claim 14, wherein the means for generating the service
model comprises:

means for identifying service points in the end service domain corresponding
to at least one resource through which a user accesses the service and at least one
5 resource that hosts an end service domain application.

17. The system of Claim 16, wherein the end service domain comprises:

a plurality of wholesale service domains, respective ones of the plurality of wholesale service domains comprising at least one network that provides traffic transport for the end service domain; and

- 5 a plurality of gateways, wherein at least a first one of the plurality of gateways couples one of the plurality of wholesale service domains to another one of the wholesale service domains and is configured to perform protocol translation on traffic passing between the coupled wholesale service domains, and wherein at least a second one of the plurality of gateways is configured to couple a user to the end service
- 10 domain and is further configured to communicate with the user by a protocol associated with the service.

18. The system of Claim 17, further comprising:

means for associating respective ones of the plurality of virtual connections with respective ones of a plurality of ordered lists of the gateways that define routes through the end service domain.

19. The system of Claim 18, further comprising:

means for associating respective ones of the plurality of virtual connections with respective ones of a plurality of routes within the wholesale service domains.

20. A computer program product for managing a service, comprising:

a computer readable storage medium having computer readable program code embodied therein, the computer readable program code comprising:

- 5 computer readable program code for providing an end service domain that comprises a plurality of resources that facilitate delivery of the service;
- computer readable program code for generating a service model that comprises a plurality of virtual processes and a plurality of virtual connections from the end service domain that are associated with the service;
- computer readable program code for obtaining information that specifies
- 10 capabilities of the plurality of resources in the end service domain; and
- computer readable program code for assigning the plurality of virtual processes and the plurality of virtual connections to ones of the plurality of resources

based on the information that specifies the capabilities of the plurality of resources.

21. The computer program product of Claim 20, further comprising:
computer readable program code for providing a policy database that
comprises rules for associating requirements of the service with the plurality of
resources; and

5 wherein the computer readable program code for assigning the plurality of
virtual processes and the plurality of virtual connections to the ones of the plurality of
resources further comprises:

computer readable program code for assigning the plurality of virtual
processes and the plurality of virtual connections to the ones of the plurality of
10 resources based on the policy database.

22. The computer program product of Claim 21, wherein the requirements
of the service comprise:

service requirements associated with the user; and
business requirements associated with the end service provider.

23. The computer program product of Claim 21, wherein the computer
readable program code for generating the service model comprises:

computer readable program code for identifying service points in the end
service domain corresponding to at least one resource through which a user accesses
5 the service and at least one resource that hosts an end service domain application.

24. The computer program product of Claim 23, wherein the end service
domain comprises:

a plurality of wholesale service domains, respective ones of the plurality of
wholesale service domains comprising at least one network that provides traffic
5 transport for the end service domain; and

a plurality of gateways, wherein at least a first one of the plurality of gateways
couples one of the plurality of wholesale service domains to another one of the
wholesale service domains and is configured to perform protocol translation on traffic

10 passing between the coupled wholesale service domains, and wherein at least a second
one of the plurality of gateways is configured to couple a user to the end service
domain and is further configured to communicate with the user by a protocol
associated with the service.

25. The computer program product of Claim 24, further comprising:
computer readable program code for associating respective ones of the
plurality of virtual connections with respective ones of a plurality of ordered lists of
the gateways that define routes through the end service domain.

26. The computer program product of Claim 25, further comprising:
computer readable program code for associating respective ones of the
plurality of virtual connections with respective ones of a plurality of routes within the
wholesale service domains.